



DEPARTMENT OF THE NAVY

NORTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
10 INDUSTRIAL HIGHWAY
MAIL STOP, #82
LESTER PA 19113-2090

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NWIRP CALVERTON NY
5090 3a

IN REPLY REFER TO
5090
Code 1821/JLC

JUN 06 1996

Mr. Jim Paulson (EPG-TT)
U.S. Department of Energy
Chicago Operations Office
9800 South Cass Avenue
Argonne, IL 60439

RE: AIR SPARGING/VAPOR EXTRACTION PILOT STUDY CONDUCTED AT THE NAVAL
WEAPONS INDUSTRIAL RESERVE PLANT (NWIRP) CALVERTON, LONG ISLAND,
NEW YORK

Dear Mr. Paulson:

Enclosed is the Navy's Summary Results Report for the Air Sparging/Vapor Extraction Pilot Study that was conducted at NWIRP Calverton, New York, which you had requested. This study was conducted at Site 2 - Fire Training Area during a four month period which started in the beginning of August 1995 and ran through December 1995. This technology was considered due to its unique characteristic to remediate both the soils in the vadose zone and the shallow layers of groundwater at the same time.

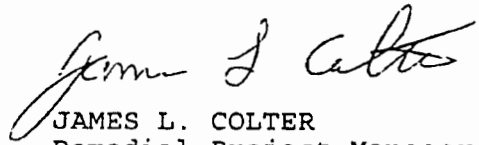
The purpose of this pilot study was to demonstrate that this type of technology could be a potentially viable and cost effective option for remediation of this site and other sites that have similar contaminants at the Calverton facility. The contaminants at Site 2 that were targeted were fuels and solvents. An additional goal of this study was to determine if this type of technology was effective in eliminating or substantially reducing a floating free-product layer that was also identified at the site.

In general, the results of the pilot study were favorable. Measurable amounts of both chlorinated and non-chlorinated volatile organic contamination were removed from the soils and groundwater. Similar reductions in semivolatile contamination was also noted. The effects of this technology regarding the free-product layer were not totally conclusive. It does appear that the system did liberate some soil-bound free product however, it was not determined if the overall thickness of the layer was affected.

It was determined that the system should continue to run for an additional period of time to better measure the overall effectiveness of the system. Additionally, more data needs to be gathered in order to determine if this technology should be used at this site as a final remedial action. Therefore, the system was restarted in early May 1996 and will continue to run until the end of September 1996. At that time, a follow-up report will be issued.

You had expressed interest in a possible site visit to observe the operation of the system. If you are still interested in a site visit, or if you would like additional information, please give me a call at (610) 595-0567, extension 163.

Sincerely,

A handwritten signature in cursive script, appearing to read "James L. Colter".

JAMES L. COLTER
Remedial Project Manager
by direction of the
Commanding Officer

Enclosure